33 1. (Thrice Amended) A method for assessing chemosensitivity of hyperproliferative cells consisting essentially of the steps of:

a) harvesting a specimen of a patient's tissue or cells;

b) separating mechanically said specimen into cohesive multicellular particulates with a particle size distribution between about 0.25 mm^3 and about 1.5 mm^3;

c) growing a tissue culture monolayer from said cohesive multicellular particulates;

d) inoculating cells from said monolayer into a plurality of segregated sites; and

e) treating each of said plurality of segregated sites with a treating means, determining cell number relative to at least one control, followed by correlating chemosensitivity of the cells in said plurality of sites to said at least one treating means.

34 ~~23~~. (Amended) A method for assessing chemosensitivity of hyperproliferative patient cells comprising the steps of:

a) harvesting a specimen of a patient's tissue or cells;

b) mechanically separating said specimen into cohesive multicellular particulates having a particle size distribution between about 0.25 and about 1.5 mm^3 with avoidance of further size reduction of the particles thereafter;

c) growing a tissue culture monolayer from said cohesive multicellular particulates;

d) inoculating cells from said monolayer into a plurality of segregated sites;

e) treating each of said plurality of sites with a treating means, determining cell number relative to at least one control, followed by correlating the chemosensitivity of the

cells in said plurality of sites to said treating means in order to assess the chemosensitivity of the patient cells; and

f) assessing the chemosensitivity of the cells in said plurality of sites, at least one of which sites further constitutes a control site, for cellular markers, secreted factors, or tumor antigens.

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24. (Amended) The method according to claim 23 wherein step e) further comprises:

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e) treating said plurality of sites with a plurality of treating means, each of said plurality of sites being treated with a unique combination of concentrations of said treating means over a length of time adequate to permit assessment of both initial cytotoxic effect and longer-term inhibitory effect of at least one of said plurality of treating means.

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26. (Amended) The method according to claim 23 wherein said treating means is a wound healing agent.